

# INSERTING AND DETECTING WATERMARKS IN IMAGES DERIVED FROM A SOURCE IMAGE

### ABSTRACT OF THE INVENTION

4 The present invention provides an image watermarking technique  
5 whereby a watermark is inserted into an adjusted digital source  
6 image that is bounded by a specific *bounding rectangle*. If the  
7 source image is larger [smaller] than the rectangle, its  
8 dimensions are reduced [enlarged] by a common factor until it is  
9 the largest adjusted image that lies totally within the  
10 rectangle. A watermark is inserted into the adjusted image and at  
11 least one derived image of larger or smaller size is produced.  
12 Then, regardless of the size of an image derived from the  
13 watermarked adjusted image, enlarging or reducing that image to  
14 again lie within the rectangle greatly facilitates detection of  
15 the imbedded watermark. The size of the bounding rectangle may be  
16 specific to each source image, or, conversely, a common bounding  
17 rectangle may be used for a group of source images.